WHAT IS CLAIMED IS:

1. An acoustical resonator comprising:

a first electrode comprising a conducting sheet having a RMS variation in height of less than 2μm;

a second electrode comprising a conducting sheet;

a layer of piezoelectric material sandwiched between said first and second electrodes.

2. The acoustical resonator of Claim 1 wherein said first electrode comprises molybdenum.

3. The acoustical resonator of Claim 1 wherein said layer of piezoelectric material comprises AlN.

4. The acoustical resonator of Claim 1 further comprising a substrate having a cavity in a surface thereof, said first electrode bridging said cavity.

5. The acoustical resonator of Claim 4 wherein said cavity is less than 30 μm deep.

6. The acoustical resonator of Claim 4 wherein said surface of said substrate comprises an electrically insulating layer.

7. A method for fabricating an acoustical resonator on a substrate having a top surface, said method comprising steps of:

generating a depression in said top surface;

filling said depression with a sacrificial material, said filled depression having an upper surface level with said top surface of said substrate, said upper surface having a RMS variation in height of less than 0.5 μm;

depositing a first electrode on said upper surface;

depositing a layer of piezoelectric material on said first electrode;

depositing a second electrode on said layer of piezoelectric material; and

removing said sacrificial material from said depression.

8. The method of Claim 7 wherein said sacrificial material comprises a material chosen from the group consisting of PSG, BPSG, spin-on-glass, polyvinyl, polypropylene and polystyrene.

9. The method of Claim 7 wherein said step of filling said depression comprises the steps of:

depositing a layer of said sacrificial material over said depression;

planarizing said deposited layer; and

polishing said planarized layer.

10. The method of Claim 9 further comprising the step of providing a layer of an electrically insulating material on the surface of said substrate and depression prior to depositing said layer of sacrificial material, said electrically insulating material preventing a diffusion of elements in said sacrificial material from diffusing into said substrate.

11. The method of Claim 7 wherein said first electrode comprises molybdenum.

12. The method of Claim 7 wherein said layer of piezoelectric material comprises AlN.

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13. The method of Claim 7 wherein said depression is less than 30 μm deep.